

VENEERED WOODEN DOORS AND A METHOD
FOR VENEERING THEIR STICKING PROFILE

TECHNICAL FIELD OF THE INVENTION

- 5 The present invention relates to wooden doors used in buildings, more particularly to a kind of veneered wooden doors and a method for veneering their sticking profile.

BACKGROUND OF THE INVENTION

- Wooden doors in current use are generally composed of stiles and rails and core panels.
- 10 The timber of the door's outer part determines the name of the door, for example, black walnut doors, beech doors, maple doors. The more famed and precious the wood, the higher grade the wooden door will be. To save high quality timber (like red oak, cherry, maple, beech, black walnut, etc.), and reduce the manufacturing cost, at present high-grade wooden doors only use high quality timber for edge bands of the stiles and rails, stickings of the stiles and rails, as well
- 15 as veneers, the main portions of the stiles and rails and the core panels use ordinary wood materials (soft miscellaneous or inferior materials such as fir, deal or poplar) or artificial boards (such as density board, flakeboard or fiberboard, etc.). However, the amount of wood used in the stickings takes about 30%-50% of all high quality timber used in the entire door; therefore, if this amount can be reduced and the wood can be partly replaced with ordinary timber or
- 20 artificial board, a considerable amount of high quality timber resources can be saved, with the manufacturing cost of wooden doors greatly reduced.

- Once the high quality wood of the stickings are replaced with ordinary wood or artificial boards, their outer parts shall be veneered with high quality wood veneers in the same way the stile and rail cores are veneered, so as to achieve an artistic unity in appearance. However, the
- 25 stickings are usually of irregular shapes (especially those with edges or corners), ordinary veneering methods can hardly help to create an ideal result of artistic unity. Thus it is desired

to find a way to veneer the wooden doors' sticking profile, so as to make veneered wooden doors both pleasing in appearance and practical in use.

SUMMARY OF THE INVENTION

5 The purpose of the present invention is to provide a veneered wooden door, whose stickings of the stiles and rails are ordinary wood material instead of high quality timber, so as to greatly lower the production cost of wooden doors.

 The other purpose of the present invention is to provide a method for veneering the sticking profile of the wooden doors, so as to seamlessly integrate the surface of the stickings
10 made of ordinary wood material with that of the stile rail cores, achieving a uniformed beautiful appearance.

 To achieve the above purposes, the wooden door of the present invention mainly comprises stiles and rails and core panels, among which the stiles and rails comprises stile rail cores, edge bands and stickings. The wooden door of the present invention is characterized that
15 the high quality timber of the stickings are replaced with ordinary timber or artificial boards, with their surface veneered with wood veneers containing high quality grains.

 The stickings and the stile rail cores can be made of same wood of ordinary trees or artificial boards in accordance with the present of the invention, and integrated into a whole, with their surface veneered with wood veneers containing high quality grains.

20 The method for veneering the sticking profile of the veneered wooden door in accordance with the present invention comprises the following steps: applying resin glue on the backside of the high-grade wood veneers; pasting it on the surface of the stickings of the wooden door which is previously applied with resin glue; then putting the wooden door into a tamping machine having the same shape as the sticking profile, with the temperature at 60~120°C, and
25 the pressure at 5~15kg/cm, applying pressure for 2~3 minutes.

 Because the high quality wood of the stickings of the veneered wooden door in accordance

with the present invention is replaced with wood of ordinary trees or artificial boards, about 30%-50% of the high quality wood is saved, thus greatly lowers the manufacturing costs of the veneered wooden doors, as well as the valuable wood resources. On the other hand, the effect brought about by the replacement of the wood of the stickings upon the quality of the wooden door is almost negligible, which makes the present invention deserving to be spread and applied. In addition, The method for veneering the sticking profile (especially those with edges and corners) of the stickings of the wooden door in accordance with the present invention gives the wooden door of the present invention a perfect appearance, without any impact on the door's pleasing appearance, stability and durability.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a front view of the veneered wooden door in accordance with the present invention.

Figure 2 is a section view along I-I of figure 1.

Figure 3 is a section view along I-I of figure 2.

DETAILED DESCRIPTION OF THE INVENTION

Through the following embodiments of the invention, further illustrations of the invention regarding the veneered wooden door and the method for veneering its sticking profile. However, the embodiments given shall not be deemed as limitations for restricting the range of application of the present invention.

Example 1

As shown in FIG 1, a veneered wooden door in accordance with the present invention mainly comprises stiles and rails 1 and core panels 2. Also as shown in FIG 2, the main body of the stiles and rails 1 are made of wood of ordinary trees, such as fir; the edge bands 5 of the

stiles and rails 1 are made of high quality wood, for instance red oak; the main body 7 of core panels 2 are made of artificial board, such as density board; the stickings 3 of the stiles and rails are made of density board, while the veneers of the outer parts of the stile rail cores and the stickings are of red oak. Since the stickings 3 are made of density board instead of red oak, the amount of high quality red oak used can be cut by about 30%-50%, thus greatly reduces the production costs.

Example 2

FIG 3 shows another embodiment of the present invention, the difference of this example with example 1 lies in the fact that high quality cherry wood is used in the edge bands 5 of the stiles and rails, while the stickings 3 and the stile and rail cores 6 adopt the same wood, namely density board, and are integrated into one part; while the veneers of the outer parts of which is of cherry wood, which is the same as that of the edge bands of the stiles and rails. Similarly, the amount of high quality cherry wood is also saved about 30%-50%, which greatly reduces the production costs.

Example 3

The outer part of the wooden door in accordance with the present invention uses the same high quality veneers as that of the edge bands of the stiles and rails. Firstly, apply evenly resin glue, for instance urea formaldehyde or water based glue, on one side of the high quality veneers, then paste it onto the surface of the stickings which is previously applied with resin glue, after that put the wooden door into a tamping machine (Model MGZ2500, Shanghai Xinguo Science and Technology Industrial Co., Ltd.) having the same shape as the irregular surface of sticking profile, the temperature is adjusted to 60~120°C, and the pressure to 5~15kg/cm², applying the pressure for 2~3 minutes.